ITAM

INSTITUTO TECNOLÓGICO AUTÓNOMO DE MÉXICO

Seminario Aleatorio

Sesión 431

Job Market Seminar

High-frequency Density Nowcasts of State-Level Carbon Dioxide (CO2) Emissions in the U.S.

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https://ignaciogarron.github.io/

Abstract

Tracking CO2 emissions is key to effective climate policies and meeting decarbonization commitments. However, data on energy consumption and CO2 emissions are released annually with significant lags, posing a challenge to timely decision-making. This paper presents a panel nowcasting methodology for nowcasting the growth rate of energy consumption and CO2 emissions in the US. We estimate a panel MIDAS model of per-capita energy consumption growth using various predictors sampled at different frequencies. In a second step, panel quantile regression is used to estimate a bridge equation relating CO2 emissions to energy consumption. The resulting density nowcasts provide information about CO2 emissions growth and its uncertainty. Predictive accuracy is evaluated using a pseudo-out-of-sample study from 2009 to 2018. The most effective nowcasting model integrates information from all sampled predictors.

Viernes 15 de noviembre de 2024,
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